

ABSTRACT

A method of treating spent alkaline pulping liquor (black liquor) includes the steps of providing black liquor containing lignin, and acidulating a phosphate containing material, wherein phosphoric acid is generated by the acidulating step. The black liquor is mixed with phosphoric acid from the acidulated phosphate containing material, wherein lignin is separated and clarified liquor results. The method can include the step of adding a water soluble, surface active, polymeric, coagulant agent to the black liquor before mixing with the phosphoric acid from the phosphate containing material. The clarified liquor comprises anion species including phosphate.